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[B. F. TWEED, Editor for March.]

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AGASSIZ.

AGASSIZ is gone. These pages will no longer be enriched by his pen. Educators in their discussions will never again hear his eloquent voice. His warm hand and genial countenance will no longer cheer earnest teachers at their social gatherings. His work is finished, — finished as far as it is permitted any one to finish a grand and noble work that can have no end. Rather say, our work is begun.

It is fitting that we should pause a while to consider what he has been to us, and what is the significance of his work.

Whatever he may have been to the world at large, to the world of science, to his more immediate acquaintances and friends, to *us* he was an elder brother, loved and loving. Crowned heads may have vied with each other in decorating him with honors; learned societies all over the earth may, in view of his great contributions to science, claim him for their own; orators and poets everywhere may celebrate his greatness; but we who are teachers cannot forget the great soul who in his last will and testament laid aside all his innumerable titles and distinctions, which men so greatly prize, and wrote simply Louis Agassiz — teacher. What nobility his noble self-forgetting, truth-searching, and truth-dispensing life gives to our humble calling!

Louis John Rudolph Agassiz was born at Motiers, near Lake Neufchâtel, Switzerland, May 28, 1807, and died at his home in Cambridge, Dec. 14, 1873. Cradled by an intelligent mother, the

daughter of a physician, tutored by a father himself a Protestant clergyman, who traced his line back through six generations of exiled French Huguenot clergymen, he, though intended for the medical profession, came with more learning than most men gain, to claim a place in the ranks of that calling that is not as yet granted to be a learned profession. A student at Lausanne, Zurich, Heidelberg, Munich, Paris, he came to be the friend and pupil of Cuvier and Humboldt. He read Plato and Aristotle in the original, wrote many of his works in elegant Latin, had French and German for his vernacular tongues, yet was able to charm English ears with the easy flow of a tongue not barren of orators and poets.

And it is certain, too, that, pressed at one time by priestly prejudice in the enunciation of geological facts, he was led to master the Hebrew language, which he once playfully remarked he could understand as well as many of them. Well versed in six languages, his course furnishes no argument against linguistic studies. But chiefly imbued with the spirit of his great masters, Cuvier and Humboldt, whose work he took up and carried on to the advancement of science, he has been known chiefly as a naturalist. His greatest works are perhaps his "Fossil Fishes" (Poissons Fŏssiles) and his "Studies of the Glaciers" (Etudes sur les Glaciers), followed by his "Système Glaciaire," and his contributions to the Natural History of the United States, of which four volumes quarto, abundantly illustrated in the most artistic manner, have already been published.*

We are not unaware of the fact that detraction, especially in England, has robbed him of a chance to be heard for a while; but one who will look over the immense work he has accomplished, and especially if he will compare faithfully, with the aid of the scalpel and microscope, any part of it with nature herself, will be amazed at the extent, the variety, the minuteness, the accuracy, the delicacy, and yet the comprehensiveness of his observations. And although he published so much, he had vastly more material for publication.

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* For a statement of Prof. Agassiz's contributions to science, see an article which comes as this goes through the press, in the March number of "The Popular Science Monthly," by Richard Bliss, Jr., a student and assistant of the Agassiz Museum.

But it is chiefly Agassiz the teacher that we would consider here. Other pens will review his scientific contributions and unfold his devotion to truth and the cause of humanity. Coming to this country in 1846, his first course of lectures was delivered at the Lowell Institute the year before the "Massachusetts Teacher" was started. But of the second course, the third number of the first volume of this journal says: "The large portion of the Massachusetts public which enjoys the advantage of attending the Lowell Institute lectures, have again * the privilege of hearing this distinguished foreigner." Foreigner then, but American he has long since proved in spirit and work. "His subject is Ichthyology, one which might be expected to be among the least interesting to a popular assembly. But where McGregor sits, there is the head of the table; and the commanding talents, the earnest enthusiasm, and the incomparable attainments of the professor give a charm to a subject that yesterday was not thought of, which to most persons is irresistible. Let any person, even of common endowments, give many days' serious attention to one of the Creator's great works, so as to get some faint insight into the law and design on which it is wrought, and what he says will be worth listening to. But when a man of genius devotes the best part of life to a kingdom of nature, and discovers relations and laws which had never before been detected, and when he comes forward to say simply, earnestly, and like a man, what he has learned, nothing but a reverence for God's workmanship, and intelligence sufficient to comprehend it, are wanting to make delighted listeners of any audience." And after speaking of the wonderful facility with which he illustrated on the blackboard the meaning of what he said, the writer continues: "Mr. Agassiz has a higher object in view than merely to teach the structure and classification of fishes; though, if that were all, he might well say that what God has seen fit to make, man may deem worthy of study. But, in addition to these, he is showing us that a higher agency is at work than the circumstances of temperature, light, food, electricity, or whatever else material can act upon creatures; that a personal, spiritual, ever-

* Agassiz gave his first course of lectures in this country before the Lowell Institute in 1846.

living Creator, has made all and controls all." Thus thought the "Massachusetts Teacher" in February, 1848.

Not to trace more minutely the relation which thus began between the great naturalist and this journal, we cannot refrain from speaking of the January number for 1850, which he edited. To this he contributed an article of nineteen pages on the "Importance of the Study of Natural History as a Branch of Elementary Education," besides a shorter article, entitled, "Some Hints on making Collections for the use of Schools." The number contained also, besides an account of the Norfolk County Teachers' Association, an article on "Good Manners," and a fine tribute to Agassiz's early friend and fellow-laborer, Prof. Arnold Guyot, in an article entitled "Geography." But what makes this number of particular value is the strong plea of Agassiz, in the leading article, for the study of Natural History in our common schools. To those teachers who united in doing honor at the last meeting of the Massachusetts Teachers' Association, at Worcester, to the memory of Prof. William Russell, of Lancaster, and of Prof. Agassiz, or at least to those best acquainted with the history of this journal, must have come the memory of the number for October, 1859, edited by Prof. Russell, who thought that nothing could be offered to the readers of the "Teacher" better adapted to promote their professional usefulness or their personal enjoyment, than a reprint of the above-mentioned article from the January number of 1850. As it is next to impossible for younger teachers to obtain these early numbers, would it not be well to again reproduce in these pages this article? For after twenty-four years of gradual progress, we may be better able to profit by its wise suggestions. Prof. R. says, "An important object in view, in introducing the article a second time into our pages, is to remind our fellow-teachers how they may, personally and individually, acknowledge the liberality of Prof. Agassiz by entering zealously and efficiently into his suggestion regarding local collections and school cabinets." Devoted student and teacher of the English language in its great richness of expression, especially as addressed to the ear, as was our venerable Professor, he knew the value to the cause of education of the studies which Agassiz so incessantly urged upon the attention of

teachers and the public. And, as the writer of this article knows, the "suggestion regarding local collections and school cabinets," which has produced perhaps little visible fruit, was the subject of very earnest remarks by Agassiz to his assistants the very last time they were assembled to hear his words. His explicit directions to all were to lay aside everything that was not needed in the museum, or to make exchanges with those who could contribute something new to the museum, for those schools that showed a desire for them. And in a museum like that in Cambridge, there is a great accumulation of material, duplicated by constant arrivals from all quarters of the globe, of what any school would be most fortunate in securing. Who would believe that any school committee, or any people, who willingly invest tens of thousands, or even hundreds of thousands of dollars in buildings for their children, will grudgingly dole out any mere pittance for cases, jars, or alcohol, properly to preserve, protect, and exhibit some of the results of the searching of so untiring, so unselfish, and so discriminating a collector as this great teacher, who thought that the *works of the Creator* were of more use in teaching the young than man's poor words about the words of other men.

But we must not linger. Our space is limited, your time is short. The press teems with sketches of his life, his labors; and one would think, from the generous praise now poured out upon his grave, that either men had forgotten their petty feelings of envy or personal dread of being overshadowed, or whatever other spirit of selfishness that threw clogs in the way of Agassiz's grand plans, and that they had suddenly awakened to find that all they can now say in his praise is an investment in an estate of which they are now heirs. And we are all heirs to the grand estate which he has left. No boy so poor as not to be able to enter at once into the enjoyment and use of the grand museum and library of science which he has collected from every quarter of the globe. And not blindly need he enter to waste his portion of the vast possessions. During the last week we have looked through some of the public libraries in this neighborhood, to be amazed at the bulk, the *mere amount*, of printed matter there accumulated, of which he was the author. And much of it, many ponderous volumes, splendidly illustrated with exquisite

engravings, were published at his own expense. We have before us a list of over fifty separate works, single volumes of which would have established any man's reputation. But a writer in the October number of "The Popular Science Monthly," who attempts to fix Agassiz's position among naturalists,—a writer with a wonderful memory and a trenchant pen, but who, being no student of nature, should not be encouraged in an arrogance as conspicuous as was the humility of the one he would disparage with ridicule and contempt,—a writer who says, "Thirteen years ago, was my mind so thoroughly made up"—he was then a sophomore in college—"that the discussion of it,"—the Darwinian theory,—"as ordinarily conducted, has long since ceased to have any interest for me,"—says that "Prof. Agassiz's explanation of the development of eggs is rather tedious and dry, and by no means richly fraught with novel suggestions. The exposition is a commonplace one." So we should think this crystallized sophomore would find it. Says Beecher, "It was Agassiz who made straight the path of Tyndall last winter, created the demand for Huxley's lectures, and made the 'Popular Science Monthly' as much a necessity as 'Harpers' or the 'Atlantic.' It was Agassiz whose large intent laid the corner-stone of our Institutes of Technology, and Scientific Schools in colleges." This the editor of the above Monthly has the justice and grace to quote in his last number.

Evolution may be true or may not be true. The facts of nature alone can tell. The fields of mythology and science are not the same; they are tilled by different instruments, require different culture.

And this brings us to the closing, the crowning work of Agassiz's life. The building up of a great museum in America, like that at Cambridge, was to be his great gift to the world; but in connection with it an institution for the special instruction of teachers, like that at Penikese, was perhaps nearest his heart. The former was as well advanced as he could ever have hoped to see it in his life-time,—its success, its final completion, only the work of time; but the special school for teachers at Penikese merits more than a brief mention. When reminded that the preparations could not be completed in time for the school this last year,

and when, in view of the labor that would come upon him, he was advised to put it off for another year, he replied, "I cannot afford to wait a year. I must see it started." He felt, as he himself says in a letter to a friend in England, "The Anderson school cannot fail henceforth to have a powerful influence upon the progress of science in the United States." And it was in no boastful or complaining spirit that he writes what all of his pupils felt was the greatest boon to them: "I have given myself up to the task with all the energy of which I am capable."

It would take a volume to record all he said and did in the short two months' session of that lone island school. With buildings and appliances half finished even at the close of the term, we yet had Agassiz. He was present at the head of the table at every meal, he was present at every lecture or exercise, at every meeting of the students' "Club"; and when not lecturing was intently following and ready to supplement any lack of information in any discussion by professors or students. He gave himself up wholly to advance the progress of the students, even sitting at the laboratory tables and working on new problems, or with the scalpel taking out the brain of a huge ray, or some other strange fish, or dissecting tiny shells or minute radiates with a delicacy and precision of movement that taught, better than any words could have done, the difference between neat, skilful work and what must have pained him as he looked over the shoulders of some whose only teaching had been from books.

It would be interesting as a lesson to the teacher to be able to follow him day by day to hear what he said and to see what he did. The history of this summer's work may sometime be written. It will serve our present purpose to give a few particulars.

His constant direction was, "Study nature, not books." Yet he did not undervalue books. The time could hardly have been spent more profitably by the student who wished to know who had written on the different departments of Natural History, or how well, than by listening to his words. He had not published his "Bibliographia Zoologiæ et Geologiæ," filling four octavo volumes, to be ignorant of *who* had written or *what* had been written. He meant that the student should learn *first* to see for himself, and this was of more worth than to know what some one

else had seen. By having his pupil teachers take up problems of structure, or form, or relationship in the specimens before them, he was showing just how they could have their pupils, in turn, best approach the subject. The course of instruction was made up sufficiently of lectures, two or three a day, but mainly of work at the tables or of expeditions in search of living specimens. He said, to begin with, that he should be more than satisfied if each student could learn before the close of the term how to work, how to go home and examine the lakes, rivers, forests, and fields of his own neighborhood with profit. His help was greatest to those that showed themselves most ready to receive aid in the study of objects. No room for sham work; no room for book knowledge, except so far as it assisted the eye to observe and the hand to trace the delicate organs which he constantly tried to show were more wonderful than anything man could say of them.

He continually and wisely noted what each was doing. And when one day, he, in the most impressive manner, remarked upon the waste of life, the destruction of specimens, the careless manner of handling works which showed such exquisite skill in their structure, and reverently and kindly reminded us that we were studying the works, the thoughts, of One who had created all this beautiful cosmos, this laboratory, expanded into a vast and magnificent cathedral, if you please to thus consider it, devoted to the worship of the Most High, and there was a hush and an awe thrown over us as if some high-priest were leading us into the presence of the Almighty, and everything around us was sacred, consecrated as no brush or chisel or tongue of man could consecrate them, — with the very presence of the Great Spirit, the Creator of the universe. It was something akin to this that gave character to his studies, that excited an interest always in every audience. It was not the mere study of the creatures of chance, the comparison of forms which were the result of accidental circumstances, that could hold the attention of the indifferent; nor was it the skill of the experimenter, nor the wonderful eloquence of the speaker. He always sank himself in his subject. A child wandering in an ever new world of delight he seemed to himself, — and to be only getting glimpses of the beautiful works of the Great Creator; though

who shall talk so lovingly or see so fully the meaning of this unknown world about us?

That tribute of Longfellow's, written on the occasion of his fiftieth birthday, beautlfully expresses this feeling.

But we must not forget that his life was a battle for what he thought the truth; and science and religion were in his mind one, though what chiefly passes for such was in his estimation neither. And in our future studies and discussions we may well bear in mind these, among his last words: —

"It cannot be too soon understood that science is one, and that whether we investigate philosophy, theology, history, or physics, we are dealing with the same problem, culminating in the knowledge of ourselves. Speech is known only in connection with the organs of man, thought in connection with his brain, religion as the expression of his aspirations, history as the record of his deeds, and physical sciences as the laws under which he lives. Philosophers and theologians have yet to learn that a physical fact is as sacred as a moral principle. Our own nature demands from us this double allegiance."

SOLON F. WHITNEY.

HINTS ON TEACHING ENGLISH LITERATURE.

IT has been our lot to teach English Literature in a country high school during the last three years. During this time, necessity has forced us to make use of various helps for the profitable prosecution of this study. The thought that these hints might be useful to others who are teaching in our smaller high schools has induced us to write the following article. It is a well-known fact that high schools, aside from the cities, are sadly in need of miscellaneous books, and even books of reference. Accordingly, most teachers are obliged to devise plans to assist their scholars to obtain the needed books, especially in literature, history, and rhetoric. To study English Literature as it should be studied, the pupil should be taught not only to read about the author, but also to make a study of his best writings. For instance, it is well enough to read about Gray and Bryant, but the

real value and discipline come from an earnest study of the *Elegy* and *Thanatopsis*. We know of no single text-book which is adapted to an advanced class in literature. Many and excellent books tell us all about authors, without any selections from the authors themselves ; others give admirable selections with scanty notices of the writers. We have used and prefer Underwood's Hand-book of Literature, as best suited to high-school instruction. Suppose we have a class of ten or more beginning a course in English Literature. We have tried the following plan with three senior classes, and found it well adapted to maintain interest and get good results from class work. Let each pupil be prepared with Underwood's Hand-book, a blank book of 100 pages, and a note-book made of brown wrapping-paper to take notes in the rough. The teacher should then give ten or more introductory oral lessons on the English Language, which the class will take down and copy in their note-books, subject to the usual questions and criticisms from the teacher. Materials for these lessons can be obtained from text-books on rhetoric, the works of Trench, Marsh, De Vere, Swinton, and Clarke's Elements. Many curious derivations, gossipy incidents, and much useful information can be easily culled from these books and arranged to accompany the Historical Introduction in the text-book. That my classes might gain more information of the authors than our text-book afforded, I loaned to each member of the class from my private library a text-book on the subject. The more common books are the works of Taine, Collier, Hart, Craik, Shaw, Yonge, Gilman, Chambers, Cleveland, Arnold, and Spalding. Prof. Shairp's Essays on Poetry, Prof. Reed's Works, De Quincey's Essays, odd numbers of the Atlantic, Eclectic, Harper's, and Living Age, were used as parallel reading. "In studying the lives and times of each author," says Prof. March, "the student should look up information everywhere ; scraps from novels like Scott's, from reviews, and magazines are not to be despised."

If, however, books are not to be had, the teacher should give the needed facts and thoughts in familiar lectures, and the students should take notes and re-write. Suppose the class begins with Goldsmith. Each should prepare from his books a condensed biography, or rather sketch ; write it out in his note-book ; come into the class next day and read, or recite orally.

Each abstract would have something new, and, with numerous questions from the teacher, interspersed with anecdotes, stories, incidents, etc., would prepare the class to begin the next day to read and study the author. If there is time, let two or more pupils, having selected interesting passages, read from Irving's Life of Goldsmith, and Miss Sanborn's Home Pictures. Of course, no teacher should begin with Chaucer or Spenser, but with some of the later writers, and should adapt his particular course of study to the class, and not the class to the course. We prefer to begin with Gray's Elegy and Goldsmith's Deserted Village; then take up selections from Addison, Bryant, Lamb, Byron, Cowper, etc. Reserve the earlier authors, as Chaucer, Hooker, and Shakespeare, till a later period in the course. Valuable suggestions on teaching English can be found in Hale's Longer English Poems, and in the educational books published by the Clarendon Press, and Macmillan & Co.

To stimulate young people to read substantial books at home, and thus gradually acquire a taste for good reading, is a difficult task. To teach pupils to throw aside sensational papers and novels for something better, and to substitute, in place of this morbid desire for the marvellous, a love for the writings of standard authors, is the duty of every teacher. To begin such a work, we have used the following plan for some time, which perhaps would not be necessary where the town or school was provided with a public library. We purchased in Boston, English editions of the best authors, published by Routledge, Nimmo, and Warne & Co., which cost about twenty-five cents each. These editions are well printed, correct, and well suited to the purpose, and include Goldsmith, Bunyan, De Foe, Scott, Byron, Lamb, with many others. The books are numbered, and on Monday mornings are distributed and charged to the pupils, who are required once a week to write or give orally a summary of what has been read. The books are retained a fortnight or month, according to the work required, and then exchanged. Each scholar marks any passage or famous lines with a pencil, and calls attention to his work by his initials or class number. It is difficult to get these editions of the English classics from publishers; it is the better way to pick them up on Cornhill, or in second-hand book-stores.

In this way, quite a large collection can be procured for a few dollars.

We never did believe much in compelling scholars to commit to memory; but with older pupils it will sometimes work well, and in connection with their study of Literature we have required them to commit to memory choice selections, and recite them before the class. Give a few hints and directions at first, and soon the pupil will learn and delight to pick out the best quotations. To start a class in Literature, to excite and maintain interest in its study, demands from the teacher skill, tact, and a thorough knowledge of this branch of study. As Mr. Underwood has said: "The teacher should make a daily study of the author from whom the lesson is to be taken. He should fill out the narrow outline of the biography. He should illustrate and refine upon the critical estimates, giving his own views, and stimulating the pupils to examine for themselves, and to form habits of independent judgment."

A. F. Blaisdell.

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*SCHOOL STATISTICS.**

[We copy the following from the "Brookline Independent," at the request of several teachers, who, perhaps, fear that the "per cent of their grade" may be too low to pass them to the class at which they are aiming.]

'T was Saturday night, and a teacher sat
Alone, her task pursuing;
She averaged this, and she averaged that,
Of all that her class was doing.

She reckoned percentage — so many boys,
And so many girls, all counted,
And marked all the tardy and absentees,
And to what all the absence amounted.

Names and residence wrote in full,
Over many columns and pages, —
Yankee, Teutonic, African, Celt,
And averaged all their ages.

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* See Regulations of State Board of Education.

The date of admission of every one,
And cases of flagellation,
And prepared a list of the graduates
For the coming examination.

Her weary head sank low on her book,
And her weary heart still lower;
For some of her pupils had little brain,
And she could not furnish more.

She slept; she dreamed. It seemed she died,
And her spirit went to Hades;
And they met her there with a question fair, —
"State what the per cent of your grade is."

Ages slowly had rolled away,
Leaving but partial traces;
And the teacher's spirit walked one day
In the old familiar places.

A mound of fossilized School Reports
Attracted her observation,
As high as the State House dome, and as wide
As Boston since annexation.

She came to the spot where they buried her bones,
And the ground was well built over;
But laborers, digging, threw out a skull
Once planted beneath the clover.

A disciple of Galen wandering by
Paused to look at the diggers;
And, picking the skull up, looked through the eye
And saw it was lined with figures.

"Just as I thought," said the young M. D.
"How easy it is to tell 'em; —
Statistics ossified every fold
Of cerebrum and cerebellum."

"It's a great curiosity, sure," said Pat;
"By the bones can you tell the creature?"
"O! nothing strange," said the doctor, "that
Was a nineteenth century teacher."

H. W.

SELECTIONS FROM R. H. QUICK.

SACCHINI says, "It is the unvarying decision of wise men, whether in ancient or modern times, that the instruction of youth will always be best when it is pleasantest. The tenderness of youth requires of us that we should not overstrain it; its innocence, that we should abstain from harshness. That which enters into willing ears, the mind, as it were, runs to welcome, seizes with avidity, carefully stows away, and faithfully preserves."

"When pupils love the master, they will soon love his teaching. Let him, therefore, show an interest in everything that concerns them, and not merely in their studies. Let him rejoice with those that rejoice, and not disdain to weep with those that weep. Let him unite the grave kindness and authority of a father with a mother's tenderness." . . . I think it a mistake to introduce, at an early age, the more thorny difficulties of grammar; for when pupils have become familiar with the easier parts, use will, by degrees, make the more difficult part clear to them. His mind expanding and his judgment ripening as he grows older, the pupil will often see for himself that which he could hardly be made to see by others. Moreover, in reading an author, examples of grammatical difficulties will be more easily observed in connection with the context, and will make more impression on the mind than if they are taught in an abstract form by themselves. Let them, then, be carefully explained whenever they occur."

"Ordinary teaching," says Montaigne, "gives us only the thoughts of others, without requiring the pupil to think for himself. We suffer ourselves to lean and rely so very strongly upon the arm of another, that by doing so we prejudice our own strength and vigor." . . . "I have no taste for this relative mendicant and precarious understanding; for though we should become learned by other men's reading, I am sure a man can never become wise but by his own wisdom." . . . "We only toil and labor to stuff the memory, and leave the conscience and the understanding unfurnished and void; and, like birds who fly abroad to forage for grain bring it home in their beak without tasting it themselves, to feed their young, so our

pedants go picking knowledge here and there out of several authors, and hold it at their tongue's end only to spit it out and distribute it among their pupils. "'T is the custom of schoolmasters to be eternally thundering in their pupils' ears, as they were pouring into a funnel, while the pupils' business is only to repeat what others have said before. Now, I would have a tutor to correct this error, and that at the very first; he should, according to the capacity he has to deal with, put it to the test, permitting the pupil himself to taste and relish things, and of himself to choose and discern them, sometimes opening the way to him, and sometimes making him break the ice himself; that is, I would not have the governor alone to invent and speak, but that he should also hear his pupils speak."

SEGMENTATION.

SEGMENTATION is defined by Agassiz as the process by which the egg passes into the perfect organism of the animal. Through it comes the successive isolation of the apparatus and the organs upon which the animal economy depends. It is by no means a creation, for the egg is a living being, but an organic unfolding of the powers by which this being passes from one stage of its existence to another. It is, moreover, a strictly natural process, and will go on whenever the necessary conditions are fulfilled. As far as the researches of naturalists go at present, there can be no animal life without it.

A process strikingly analogous to Segmentation is going on in education. "A system of schools" has been in existence in this country since its foundation; but when this so-called system is compared with an ideally perfect system, it appears to be as far from it as the life of the egg is from the life of the perfect adult animal: it has life in it, and, just now, the promise of more abundant life; but it is life struggling for the means of expression; life without definition of its processes, and devoid of unity of action or aim. Through lack of concentration and of competent supervision, the enormous expenditure of force in public education has not produced adequate results. Forces oppose and neu-

tralize each other instead of co-operating, and the results achieved are rather in spite of our "system" than by reason of it.

But it is a fact, full of encouragement, that all our methods and processes of education are undergoing a rigid scrutiny. The claim of every one to regard and trustworthiness is promptly challenged. College presidents and professors meet grammar masters in council; the Social Science Association brings Agassiz and the primary-school teacher together on common ground, each as interested as the other in the proper teaching of children. The Bureau of Education is, at last, beginning to furnish facts for the foundation of a science, and then a profession of training. The whole community is awakening to a needed sense of duty and a new forth-putting of effort in education.

It is proposed in this article to point out some of the indications in popular sentiment, of an approaching change — already begun indeed — in our theory of education which will lead to a proper isolation of its parts, and the arrangement of those parts in a more enlarged and efficient organism.

The agitation of the High School problem points towards the gradual absorption of the work of fitting boys for college by the academies. In the present condition of affairs, such a step, if taken suddenly, would be disastrous. The argument in favor of "fitting boys" in the High School is a very strong one. But the figures given by President Eliot, which appear to be corroborated in a general way at the other colleges, show conclusively that, with the exception of the Boston Latin School and the Cambridge High School, which have exceptional claims, this work is mainly done in academies now, and the proportion of it done there has been steadily increasing for some years. The researches made at the Bureau of Education, the results of which are tabulated in Gen. Eaton's reports, are exceedingly instructive. Especially noteworthy is the following extract from Prof. Horace Goodhue's address before the Teachers' Association of Minnesota. Quoting in each case the President or Secretary of the college as authority, he says: "At Middlebury one half of the incoming class are from the public High Schools; at Bowdoin, 38 out of 101; at Harvard, 38 per cent; at the University of Vermont, 30 per cent; at Dartmouth, 14 out of 47 'already examined'; at

Williams, not more than one sixth. The total in all the colleges reporting who have fitted at the High School is 584; at the Academy, 1,355; or, 30 per cent at the High School and 70 per cent at the Academy. Phillips Academy, Andover, for twenty-eight years ending with 1861, sent over 1,000 to college, while it took the Boston Latin School forty-six years, ending with the same date, to send 600. Williston Seminary during the last ten years has graduated 300 and sent 200 to college."

It is well known that the work done at Phillips Exeter Academy is almost exclusively fitting boys for college, and that some of the best of our New England scholars received their early training there. If, now, it is urged that the quality of the fitting work done at the High School is equal to that of the Academy, or better, the answer will be from a very large number of the best friends of the High School, that it must be for that reason inordinately expensive; for the five or six boys fitting in the High School will have received the same teaching as has been devoted in the Academy to five times the number.

A gentleman in private conversation recently uttered a thought which has taken more or less definite shape in many minds: "It would be better for us," he said, "to pay the expenses of our boys who are fitting for college at Phillips Academy, and let our High School teachers spend their strength on the others." To this a by-stander objected that it would be penny-wise and pound-foolish to send out of the school the purely scholarly boys; and that the influence of one fine lad of high scholarly ambition is worth to the town all that it costs to fit him for college. The ready reply was, "In my judgment, the presence of a college class in the High School generates a feeling of inferiority amongst the other boys which is the main reason for their scarcity in the graduating classes."

Another important motive is operating with more or less force upon the minds of large numbers of people, namely, the advantage to any denomination, of schools controlled by members of that denomination. Probably a large number of people are in favor of withdrawing youth of both sexes from the care of the state as soon as the elementary period is passed, and consigning them to the care of strictly denominational schools. The Catho-

lics have urged and carried out this policy more pertinaciously and more extensively than any other class; but this very movement on their part has developed activity in other directions. The Baptists have a school in New York sustained in part by a moiety of the public money, and are actively engaged in securing a competent endowment for the Worcester Academy and other similar schools. The Episcopalians have flourishing parish schools in many parts of the West, the main idea of which is to conduct the secondary and higher education of youth under denominational influences. Many prominent clergymen and laymen of this order are strongly in favor of this plan. These examples may serve as illustrations of a sentiment more or less prevalent in every denomination in favor of special schools for secondary and higher education.

From an entirely different standpoint, namely, the place and power of the American College, ex-President Walker argues for a wholly new kind of schools to cover the Freshman year, and Dr. McCosh points out with great force and clearness that the immediate and pressing need in this country is of secondary schools. The argument against further appropriations of public land in aid of Agricultural Colleges so ably put by Mr. G. F. Hoar gets all its force from his clear perception of the crying need of more and better schools below the grade of these colleges.

These points are made not as against the High School, or in favor of the Academy, but for the purpose of indicating the drift of thought on the subject of secondary education towards a more complete isolation of its parts. The end towards which it seems to be tending is, first, the enlargement of the work of the Academy till it becomes a fitting school for an enlarged and purified college; and, secondly, making the study of the classical languages in the High Schools a means to the end of a broader English education, which shall fit youth for technical schools, and for immediate entrance upon the practical duties of life.

[To be continued.]

"ROGER ASCHAM's 'Schoolmaster' contains, perhaps," says Dr. Johnson, "the best advice that was ever given for the study of languages."* And Mr. J. E. B. Mayor (no mean authority) ventures on a still stronger assertion. "This book sets forth," says he, "*the only sound method of acquiring a dead language.*" Mr. George Long has also borne witness on the same side.

And yet, I believe, few teachers of the dead languages have read Ascham's book, or know the method he proposes. I will, therefore, give an account of it, as nearly as I can in Ascham's own words.

Latin is to be taught as follows: First, let the child learn the eight parts of speech, and then the right joining together of substantives with adjectives, the noun with the verb, the relative with the antecedent. After the concords are learned, let the master take Sturm's selection of Cicero's Epistles, and read them after this manner: "First, let him teach the child, cheerfully and plainly, the cause and matter of the letter; then, let him construe it into English so oft as the child may easily carry away the understanding of it; lastly, parse it over perfectly. This done, then let the child by and by both construe and parse it over again; so that it may appear that the child doubteth in nothing that his master has taught him before. After this, the child must take a paper book, and, sitting in some place where no man shall prompt him, by himself let him translate into English his former lesson. Then showing it to his master, let the master take from him his Latin book, and, pausing an hour at the least, then let the child translate his own English into Latin again in another paper book. When the child bringeth it turned into Latin, the master must compare it with Tully's book, and lay them both together, and where the child doth well, praise him, where amiss, point out why Tully's use is better. Thus the child will easily acquire a knowledge of grammar, and also the ground of almost all the rules that are so busily taught by the master, and so hardly learned by the scholar, in all common schools." "We do not contemn rules, but we gladly teach rules; and teach them more plainly, sensibly, and orderly than they be commonly

* Life of Ascham.

taught in common schools. For when the master shall compare Tully's book with the scholars' translation, let the master at the first lead and teach the scholar to join the rules of his grammar book with the examples of his present lesson, until the scholar by himself be able to fetch out of his grammar every rule for every example; and let the grammar book be ever in the scholars' hand, and also used by him as a dictionary for ever present use. This is a lively and perfect way of teaching of rules; where the common way used in common schools to read the grammar alone by itself is tedious for the master, hard for the scholar, cold and uncomfortable for them both." And elsewhere Ascham says: "Yea, I do wish that all rules for young scholars were shorter than they be. For, without doubt, *grammatica* itself is sooner and surer learned by examples of good authors than by the naked rules of grammarians."

"As you perceive your scholar to go better on away, first, with understanding his lesson more quickly, with parsing more readily, with translating more speedily and perfectly than he was wont; after, give him longer lessons to translate, and, withal, begin to teach him, both in nouns and verbs, what is *proprium* and what is *translatum*, what *synonymum*, what *diversum*, which be *contraria*, and which be most notable *phrases*, in all his lectures, as,—

Proprium . . .	Rex sepultus est magnifice.
Translatum . .	Cum illo principe, sepulta est et gloria et salus reipublicæ.
Synonyma . . .	Ensis, gladius, laudare, prædicare.
Diversa . . .	Diligere, amare, colere, exardescere, inimicus, hostis.
Contraria . . .	Acerbum et luctuosum bellum, dulcis et læta pax.
Phrases . . .	Dare verba, abjicere obedientiam."

Every lesson is to be thus carefully analyzed, and entered under these headings in a third MS. book.

All this time, though the boy is to work over some Terence, he is to speak no Latin. Subsequently the master must translate easy pieces from Cicero into English, and the boy, without having seen the original passage, is required to put the English into Latin. His translation must then be carefully compared with the original, for "of good heed-taking springeth chiefly knowledge."

— *R. H. Quick's Essays.*

A VERMONT DEPARTMENT OF THE TEACHER.

WE are happy to announce that, with the April number, we shall increase the size of the "Teacher" by the addition of eight pages, edited by a Vermont educator, and constituting a distinct department.

We hope our friends in Vermont will see to it that we have a large increase to our subscription list in this new partnership. The Bay State and the Green Mountain State have always walked hand in hand, politically; and certainly our educational interests are one.

DR. ARNOLD has said, "It is clear that in whatever it is our duty to act, those matters it is also our duty to study."

We have no doubt it was clear to Dr. Arnold, and that a conscientious performance of this duty was the secret of his eminent success and his world-wide reputation as a teacher. But is it so clear to most people as to lead to practical results? Do teachers, as a rule, before assuming the responsibility of the discipline and instruction of a school, feel it to be their duty to prepare by a regular course of study? The lawyer and the physician act on this principle; but how many young men are there, who, having graduated at a college, though they have never read a book on principles and methods of instruction, decline to take a school because "they have not studied those matters on which it will become their duty to act"? How many of the 8,000 female teachers of Massachusetts felt it to be their "duty" to "study" principles and methods of discipline and instruction, to prepare themselves for the duties of the school-room, before assuming its responsibilities? A very small proportion of those who are found in our schools. And yet the success of those who have made this preparation, and who are availing themselves of every means of improvement, is so manifest to any one competent to judge, that it requires only intelligent supervision of our schools to show the difference between "teaching" school and merely "keeping" it. We say, then, that supervision by persons who have made a study of educational principles and methods is the great want of our schools. If we are told that *intelligent teaching* is essential to progress, we admit it; but examination by the best methods will call for the best methods in teaching. The law of demand and supply is the same here as in political economy.

Now, it is no imputation upon the intelligence of school committees to say that they are not, as a rule, competent to examine a school, and to instruct or advise teachers as to the best methods of teaching. Men who have spent their time in the school-room as teachers, although intelligent, would hardly be selected to examine and report upon matters of a commercial character; and if teaching is the only branch of industry (except that of the unskilled laborer) which requires no special preparation, and in which experience is of no account, it is certainly presumption to speak of it as a profession, or even as a trade.

The statement of Dr. Arnold, which we have placed at the head of this article, applies not only to teachers but to committees as well; and what proportion of intelligent business men elected to the office of school committee have the time and inclination to make such a study of pedagogy as to enable them so to examine and advise as to improve the methods of instruction in our schools?

What we want, and what we must have, before we can determine how much our pupils are capable of doing, is a corps of *thoroughly prepared teachers*, subject only to the supervision of *educational experts*.

We have received the catalogue of the West Newton English and Classical School established in 1854 by the present principal Nathaniel T. Allen, and "Father Peirce." Mr. Allen had charge of the Model Department connected with the first Normal School in America.

With such teachers it is not strange that this school took a high rank from the first; and the fact that Mr. Allen has had charge of it to the present time accounts for its continued and growing prosperity.

At a reunion of those who had formerly been pupils of the school, in connection with a reception to Mr. Allen, who had been absent in Europe two years on an educational tour, many gentlemen holding high positions in the community testified to their appreciation of the excellence of this school, and their respect for Mr. Allen. We are glad to see that the school is at present in a very prosperous condition.

The system of instruction in the several departments, as given in this pamphlet, is an interesting and instructive paper, which we hope to publish in the "Teacher," containing, as it does, the views of Mr. Allen on the subjects and methods adapted to mental development from the earliest stages.

THE CHILD'S BOOK OF NATURE,

Published by Harper Brothers, has for some time been an "allowed" book in the Boston schools, and we are happy to see that its use in the schools in which it has been introduced has proved so satisfactory that it is now made a *required* book in all the schools.

This book is, we believe, a universal favorite with good teachers, and interesting to pupils, when used according to the design of the author. It will stand the test of anything but the humdrum *memoriter* recitations, which, out of place anywhere, are especially so in introducing a child to the study of Nature.

CLASSICAL AND HIGH SCHOOL TEACHERS' ASSOCIATION.

The Seventh Annual Meeting of the Massachusetts Association of Classical and High School Teachers will be held in Worcester, in the High School building, Walnut Street, on Friday and Saturday, April 10 and 11, 1874, commencing at 10 A. M.

SUBJECTS FOR DISCUSSION.

1. Method of studying Geometry. (10.30 A. M.)
2. The study of English Literature in connection with the study of Classic Literature. (11.15.)
3. The pronunciation of Latin. (2 P. M.)
4. To what extent, and how, shall the modern languages be taught in our High Schools? (3.30.)
5. Physical Education. (Evening, 7.30.)
6. Treatment of Latin and Greek Composition. (8.30.)
7. How can the Preparatory Schools best meet the increasing requirements both of the Technical Schools and the Colleges? (Saturday, 9. A. M.)
8. The difference between the aims and results of secondary education in Europe and America. (11.)

A full attendance is requested. Brief essays on most of the topics will be presented. It is hoped that every Teacher will prepare himself to take part in the discussions.

CHAS. HAMMOND, *President.*
W. F. BRADBURY, *Rec. Secretary.*

ASKING QUESTIONS.

I SEND my method of asking questions to the "Teacher," hoping that it may help teachers whose scholars ask a great many questions. The questions about the lessons are the most important ones to be answered: —

For them, raise the right hand. Questions about leaving the room are next in importance. For them raise the right hand closed with the exception of the first two fingers.

For questions neither about the lessons nor leaving the room, raise the right hand closed with the exception of the forefinger.

It is not always easy to judge whether a question is necessary or not till you know what the question is.

In schools where there are scholars who will take advantage of a teacher by asking the same question twice, I think that this method will be found very convenient.

The scholars in my room learnt it very readily, and seldom make a mistake in raising their hands.

I have tried it three months and find that it saves me much time and talking, for I can tell at a glance what is wanted, without asking what the question is.

M. E.

FAITH AND KNOWLEDGE.

Two jolly professors were leisurely walking
The streets of a far Western city, and talking
Of all sorts of matters that happened to strike 'em,
Of shop-signs, and door-plates, and everything like 'em,
Suggestive of nonsense, of wisdom, or wit,
Looking chiefly for sport, — to make a good hit, —
When T. saw "J. Rex" on a door-plate, and mused
As he said to Prof. W., slightly confused,
And taking a whiff (for Prof. T. was smoking),
"Do you s'pose that's his name, or is he only 'jo-king'"?
For a moment the Prof. looked as blank as a leek, —
For his specialty was not in Latin, but Greek, —
Then exploded, and laughed out of all sort of reason,
Declaring it to be the best pun of the season.
He told it his friends, and laughed louder than ever,
Who all were agreed that the bon-mot was clever.
But of all those who heard it, you scarcely would see
One who seemed to enjoy it as much as T. B.
He laughed when first told him, and every time after,
Grew purple and chuckled with violent laughter.
Some weeks passed away, and some one was repeating
The story, while T. B. his luncheon was eating.
"Very good," said a pedant, proud of his Latin,
Who it happened was near the chair that he sat in,
"Yes, Rex is the Latin for king," — and he looked
As if conscious 't would show that he was well "booked."
"Is it? is it?" said T. B., his face all aglow;
For before he had laughed upon *faith*, you must know.

THE STUDY OF GRAMMAR IN GRAMMAR SCHOOLS.

Lecture delivered before the Plymouth County Teachers' Association, by B. F. Tweed.

LADIES AND GENTLEMEN:

I recollect hearing a discussion some years ago between two boys, one about ten and the other perhaps twelve years of age, on the study of grammar.

The younger began it by asking when he would begin to study grammar.

"Why," said his brother, "you are studying grammar now."

"No, I *aint*," said the younger. "I am studyin' the '*nals* o' language."

"Well," said the elder, "that 's grammar."

"No 't aint," insisted the younger. "Grammar is third person, singular number, nomitive case. Aint it, Mr. T.?"

Not wishing at that time, and before such an audience, to go into a critical examination of the exact province of grammar, I am afraid that I accepted the boy's definition as being most in accordance with the general notion of grammar, judging by the way it is commonly taught.

Since then I have heard the same question discussed by older people, but I am not sure that I have heard a more satisfactory definition. Indeed, though grammar has always been recognized as one of the regular branches, and, in fact, has given name to one class of schools, there is no branch about which there has been such a diversity of opinion and practice among teachers, at any given time, and such changes and fashions at different times.

Perhaps the most remarkable instance illustrating this statement occurred in Boston, somewhere about 1840, or between 1840 and 1845.

Now, ladies and gentlemen, don't suppose, as I relate this, that I am drawing on my imagination for facts. It is all veritable history, all of which I saw and *no* part of which I was.

A Mr. James Brown, of Philadelphia, made a grammar, and came to Boston with the intention of introducing it into the Boston schools.

He claimed to have greatly simplified the subject, and rescued it from an unmeaning jargon of nonsense; and a large number of the masters of the Boston schools, some of whom are now living, petitioned the committee to introduce it into the grammar schools.

It began with the assertion that every nation has its own phrenod, — a phonod and an alphod; that such a combination of words as forms a cordiction is a gnomod; that grammar is divided into Monology, Dendrology, Deicology, Epideicology, etc.; that Monology is the science of monos, — of which, I think, there can be no doubt; that a mono may be broken or unbroken, of the uni or plus relation.

Then we had a dissertation on corms, pœcorms, and nepœcorms, clades, etc.

Mr. Brown declared that what we were teaching as grammar was the merest nonsense, and many of the teachers admitted its truth, — I am inclined to think, not without some reason, — and wished the committee to introduce the simplified and improved system of Mr. Brown into the Boston schools.

I never could fully understand and account for this preference, except on the theory that Boston being the Athens of America, the masters naturally affected the Greek nomenclature of Mr. Brown.

The committee, however, many of whom had never been to college, and to whom the book was "all Greek" in more senses than one, refused the petition of the masters, preferring, I suppose, that the text-book for English grammar should be in the English language, even if it was somewhat technical and stiff.

Since then we have had periods when the "'nals o' language" has been in vogue, almost or quite to the exclusion of "third person, singular number, nomitive case,"— or parsing, and others when parsing has had the field almost to the exclusion of analysis.

Sometimes a *large* book has been called for, or two or three books, and at present we hear it asserted that ours is almost a grammarless language, and that all we want is a very small book, if any; for there are not wanting those who advocate dropping it entirely from our grammar schools.

Now, with all this experience of the past and disagreement of opinion at present, is there any common ground on which all can be brought to stand, that shall rescue English grammar from the odium which attaches to it, and make it a valuable and practical exercise in our schools? Logicians tell us that the best way to settle controversies is to go back to definitions. Let us try it.

I believe that all our common school grammars, with perhaps the exception of Mr. James Brown's, agree that "English Grammar is the art of speaking and writing the English language correctly."

May we not, then, keeping this definition in view, all set about imparting to our pupils the ability to speak and write correctly?

Undoubtedly we should have a diversity of methods, but let us all aim at the same result; and in our examinations for promotion, etc., let the test of the pupils' success in grammar be, not the ability to give grammatical definitions and rules, most of which are unsettled and doubtful, nor parsing, nor analysis, but the ability to express what they know on a subject correctly, both in oral and written discourse.

The most successful teachers would of course be those who themselves had the most comprehensive and accurate knowledge of the language, and who secured the greatest amount of judicious practice on the part of the pupils. And this practice might begin at a very early stage in the pupils' progress.

Every one familiar with young children must have observed how soon they recognize the grammatical forms and inflexions of the language.

Children in the lowest classes of the grammar schools and even in the primary schools recognize the regular forms of the degrees of comparison, of the plural of nouns, of the cases and genders of pronouns, and to a considerable extent, of the moods and tenses of verbs; and their chief mistakes arise from not knowing what words are irregularly inflected. Thus we hear *gooder*, *mans*, *runned*, *etc.*

We may begin, then, with the elementary combination of words, — the simple sentence. Write on the blackboard, for instance, "The boy loves his mother." Now, let the pupils exert their ingenuity in putting this in the form of a question. Then add the word "yesterday," and let the pupils change the verb to correspond. Then substitute "to-morrow" for "yesterday," and very young pupils may be taught to make the necessary changes.

In this way pupils acquire the power of forming sentences and changing them from the declarative to the interrogative form, and of using the principal moods and tenses.

An exercise similarly conducted may teach them the proper use of the several numbers, cases, and genders of the pronouns; and so nearly or quite every inflection in the language may be taught practically before pupils even suspect that they are studying grammar.

These exercises should be both oral and written, and, if the teacher has not time, it may be taken from the spelling lesson ; for, while teaching this, by requiring the pupils to make sentences containing certain words, it will be the best spelling lesson that can be given.

Let me not be told that this is all very well in theory, but it can't be done in practice.

Within a month I have taken classes that knew nothing of grammatical terms, and by questioning have got the pupils to change the declarative to the interrogative form, to vary the verb to express present, past, and future time, to vary the adjectives to express the degrees of comparison, and the pronouns to show the gender, number, and case. The facts may thus be learned before the grammatical terms, and when recognized, it will be easy to teach the terms.

But it may be said this is not grammar. Whether grammar or not, however, it secures that which it is the purpose of grammar to teach, if we recur again to our definition ; and, in connection with these exercises in writing, I would have the parts of speech learned, not by an abstract definition, which if true the pupils are not able to comprehend, but by calling their attention to the several *uses* of the words in forming a sentence. The *relations* of words on which depend the inflections may be taught in the same manner. Definition is a later process, after the *facts* are learned in their concrete form. Take for example the rule that "A verb must agree with its subject in number and person." Now, leaving out of the question the difficulty of making a child understand what is meant by person and number as applied to the verb, what *fact* does this rule give that will enable the child "to speak and write correctly"? The fact I suppose to be simply this: that the *form* of the verb is changed when used in the indicative present and perfect with a subject of the third person, singular. In the irregular verb 'to be" there is a little more change of form. Let these definite facts be illustrated, as they easily may be by their use in simple sentences, and the child *has* learned something that will help him "to write and speak the language correctly." When the pupil has acquired a considerable degree of facility and correctness of verbal expression, it will be soon enough to begin to generalize and learn grammatical principles.

A simple form of analysis which the pupil has learned in distinguishing the parts of speech I think should precede syntactical parsing, and parsing should be understood to be entitled to but a small portion of time. While it does not teach pupils in the early stages "to speak and write correctly," it gives but a very imperfect explanation of grammatical forms and constructions when language is examined critically. Thus "teach" is an irregular verb, and "go" is an irregular verb ; and here parsing leaves them, with the statement that they do not form their past tense and perfect participle in "d" or "ed." But this is not the essential distinction. "Taught" was regularly derived from "teach," and we call it irregular simply because the process has now become obsolete. But "go" is a defective verb, not used in the past tense, and the defective verb "went," used only in the past tense,

is pressed into service to supply the deficiency. So of the adjectives "good," "better," and the pronouns "I," and, "me," — they are not etymologically related, but *defective*, and put together for convenience. What we call the verb "to be" is a patchwork of several defective verbs. But I object to the prominence given to parsing not only because it gives but an imperfect explanation of grammatical forms and constructions, but because, in many instances, it gives *false* impressions, by making similar constructions appear to be unlike.

"The man was known to me," and "The man was unknown to me," are precisely the same in construction, but parsing gives a pupil the idea that they are as unlike as possible. I repeat, then, that parsing not only does not give the essential facts of language, but frequently misleads by making what is alike in construction seem widely different. And this leads me to say that no one is qualified to teach grammar who has not studied it historically. As Latham says, it contains many constructions that cannot be logically accounted for. Of all critics, deliver me from one who can parse the most difficult sentences, but who has no knowledge of the changes which have taken place in the language since it ceased to be pure Anglo-Saxon. In a living language that is constantly changing, and especially in a composite language like ours that has taken so much and is ready to take so much more from other languages, there are many words that we have to take "on the wing." A large part of the questionable forms are forms that are in a state of transition, and we must know their *course*. Of two forms, which is the old, and which the new? Has the old form become obsolete, or is it still allowable? Has the new form received the sanction of good writers? These questions are to be asked of individual words; and here, in many instances, the grammars and dictionaries fail us, and we are obliged to rely on our own judgment.

A large number of verbs are given as regular, or irregular; and while we may be sure that the irregular is the old form, we must decide whether the new form is sanctioned by good use. The same may be said of the spoken language. We have, at any given time, words in every stage of advancement towards being perfectly anglicized.

As a teacher of elocution and English literature, I think that in nine cases in ten, when I have been consulted with reference to doubtful orthography or orthoepy, or grammatical inflections, it has been with regard to this class of words; and I repeat that one can get no satisfaction from, or is misled by, the dictionaries, unless he knows as much about it as the dictionary. Take "menagerie," for instance.

Worcester gives us "authority" for two forms of spelling, and two of pronunciation,— omitting only the one which, if not most common now, certainly will be when the word is perfectly anglicized. Thus, "Menagerie, Menagery. Pronounced (Me-năzh'-er-ē, Men-ăzh-e-rē'.) Now, I suppose this word came to us from the French, and was pronounced "Menăzherie," with as little accent as possible. The first step towards anglicizing was to give it the English accent (Menă'zhérie); the next step would be, or will be, to

change the sounds of "a" and "g" to English, and the last to change the French "ie," in the last syllable, to the English form "y." It will then be perfectly anglicized.

At the present time, if I should ask each teacher present to pronounce and spell the word, I have no doubt that I should get nearly every stage in the process. All, I think, would agree to give it the English accent, but some would say "năzh," some "năzh," and some "năj," though I doubt if any one would dare to change the termination to conform to English analogy.

What, then, shall we do with words that are in this transitional state? In the absence of fixed authority, or when "doctors disagree," we ought to know how the word is tending, and as fast as, in our judgment, good usage will permit, let us reduce it to English analogy. As I stated before, a very large part of the words and constructions that are matters of debate are of this class. For instance, revery, prestige, chivalrous, discrepancy, demonstrate, concentrate, etc.

The order, then, thus far in which I would teach grammar, or "the art of speaking and writing correctly," should be that which I have already indicated, viz. conversation, in which I would make and invite criticism, frequent exercises in writing, beginning at a very early stage of the pupil's progress, never requiring the pupil to write on a subject with which he is not well acquainted:

Teaching the several parts of speech by a simple process of analysis, rather than by formal definition:

Parsing to the extent of showing such relations as are indicated by inflection and arrangement; then such facts as are not included in parsing and analysis, but which are necessary to an accurate use of language either in speaking or writing.

With regard to definitions, let me not be misunderstood. Definitions, when perfect and fully comprehended, give clearness and accuracy to our statements, and assist greatly in the retention of knowledge. But of all things grammatical definitions are the most vague and uncertain.

Dr. Latham, the great grammarian, says that of every hundred statements in our grammars, he does not hesitate to say that ninety-nine of them come under one of these two categories; they are either false, or, if true, were known to the pupil before, and therefore unnecessary.

This may seem to many an exaggerated statement. I confess it struck me so, at first. But when I came to test it, I was prepared to admit its truth. We have already seen that one of the rules of most common application, — that "A verb must agree with its subject, etc.," — is not true as a general rule. The whole subject of mood and tense is in the same unsatisfactory state so far as definition is concerned. The potential *declares* just as much as the indicative, and instances are not rare where the tenses not only cannot be determined by the definition, but are in direct violation of all use which could be inferred from the definition. Dr. Latham also tells us that "most of the grammatical definitions are unsettled," that "no cautious grammarian will answer the question how many *cases* there are." "It depends," he says, "on

our definition of case"; and here grammarians are not agreed. At the meeting of the State Teachers' Association, held at Worcester last year, considerable time was occupied in the discussion of this very question; and the diversity of opinion was very great. So much interest was manifested, and so much feeling excited, that it has been continued in our educational journals. An internecine "war of words" between Westfield on the one side, and Springfield and Monson on the other, has been raging in the very heart of the Commonwealth, on a question that is often made a test of qualification for promotion from the grammar to the high school.

Is it worth while to occupy the time of teacher and pupil on these abstract definitions, which have no practical value, and about which teachers themselves are not agreed?

Even grammar-makers are obliged to give *equivocal* definitions, for fear of going counter to the ideas of some teachers. Thus, in a grammar very much used in our schools, we have this definition of the nominative case: "The nominative case is that *form* or *state* of a noun or pronoun used as the subject of a verb." Undoubtedly. But which? The *form*, or simply the *state?* If *form*, the definition applies as well to the *objective* case of nouns, and some pronouns, as to the nominative; and we have, in fact, but *two* cases of nouns.

If the *state* or *relation* constitutes case, then no nouns or pronouns are in the nominative case unless used as the subject of a verb, *i. e.* there can be no predicate nominative, or nominative independent; and there are as many cases as there are possible relations of nouns and pronouns to verbs, for the same author tells us that "cases are distinctions based on the *relations* of nouns and pronouns in sentences."

Similar criticisms may be made on Mood, Tense, etc. (See Kerl's Grammar, 146 p.)

I know of nothing more stultifying than requiring the pupil to commit to memory something that conveys *no distinct* idea, — or if it conveys an idea, one so erroneous that when he comes to apply it he finds it impossible.

Suppose that after committing all that is said about Mood and Tense, I require the pupil to apply his definitions in parsing the following sentences: "I will go to-morrow." "I may go to-morrow."

Will it be easy for me to make the pupil understand that "will go" is in the *indicative*, because it indicates or asserts, and that "may go" does not assert? Or again that "will go" is future tense, because it expresses future time, and that "may go" is present tense, because it expresses *present* time?

Such are some of the difficulties if we undertake to teach grammar by the definitions. They might be multiplied to any extent. Even in the sentence that I have just uttered, "might be multiplied" is in the past, or imperfect tense, not because it expresses *past* time, for it doesn't, but because it has that form.

I may be reminded that it is easier to find fault with what is done than to tell what ought to be done. As Portia says, "It is easier to tell a thousand

what it were good to do, than to be one of a thousand to follow my own instructions."

But I think I can tell what I would do in teaching grammar in our grammar schools. As I said before, I would try by daily exercises in writing to teach the scholars to write the language correctly. I would teach them to discriminate the parts of speech by their use in the sentence. I would teach them for convenience the most common grammatical terms and their application.

But I would not insist on their learning by heart definitions which express to them no meaning, and which would be pronounced false by many grammarians.

Above all, I would depend on exercises in composition for the ability to write correctly.

The young man who resolved never to go into the water till he had learned to swim made no greater mistake than those who undertake to teach the correct use of the language by any other method than by writing and speaking it.

It is so with every art. A study of the formal rules of logic does not necessarily make a good reasoner, any more than a study of Izaac Walton will make a skilful fisherman without practice.

I have thus spoken of grammar as the *art* of speaking and writing correctly. This, I take it, is all we directly aim at in our common and grammar schools.

Whatever is obtained beyond this, of a disciplinary character, will be more sure to come if we teach it in this practical and common-sense way, than if we make mental discipline the direct aim.

That in more advanced stages the study of grammar may be pursued as a branch of metaphysical science, and by other methods, I admit.

Prof. Atkinson, of the Institute of Technology, tells me that in the examination of young men for admission to that institution, he finds that those who pass the best examination in analysis and parsing are not uniformly or commonly those who pass the best examination in composition.

And I have myself evidence tending in the same direction.

In preparing questions for admitting pupils to our High School, I have given five questions on technical grammar, marking them on a scale of *ten*, and an exercise in composition, marked on a scale of *fifty;* and by a careful examination of the papers I do not find that skill in parsing is evidence of the ability to write correctly. On the contrary, some schools that do not give the best specimens of parsing yet give the most correctly written compositions. You will not on this account infer that I consider parsing an obstacle to correct writing, except so far as it takes the time and attention which might be given more profitably to composition.

If, then, the grammar that we teach in our common schools is properly defined as "the art of speaking and writing the language correctly," it follows, I think, that *conversation* and *composition* are the principal means of teaching it.

Conversation, I think, has much greater value as an *educational* force than we have generally assigned it; and by conversation I do not mean what Cowper calls "a *duel* in the form of a debate."

I mean a free and easy talk with pupils on some interesting subject, in which a genial criticism, whether of pupil or teacher, is allowed; and the teacher should make himself a party to the conversation, rather aiding his pupils by suggestive hints and questions than pronouncing authoritative conclusions. The man who can get his pupils to converse with the greatest freedom is, I think, generally the best teacher.

After such an exercise as this in learning to *speak* correctly, what better exercise can we have in writing than to require the pupils to put their views on the subject upon paper?

I have thus endeavored to state some of the methods by which I would teach grammar. They are all reducible to one principle announced by the great Teacher. "Ye shall know, . . . if ye *do*."

In this respect artisans, as carpenters, blacksmiths, etc., have been wiser than, — I will not say the children of light, — but wiser than many schoolmasters.

SPELLING.

"I KNOW a person of great quality," says Locke, "(yet more to be honored for his learning and virtue than for his rank and high place), who, by pasting on the six vowels (for in our language 'y' is one) on the six sides of a die, has made this a play for his children, that he shall win who, at one cast, throws most words on these four dice; whereby his eldest son, yet in coats, has *played* himself *into spelling* with great eagerness, and without once having been chid for it or forced to it."

[*Extracted from a Honolulu paper, for the Teacher.*]

A HONOLULU SCHOOL.

FORT STREET SCHOOL — Corner of Fort and School Streets. This Public School consists of Primary, Intermediate, and Grammar School departments.

The following is the curriculum of study in the Grammar School department: —

Rhetoric and Composition. English Grammar and Analysis. Spelling and Defining. Practical Arithmetic, — a thorough course with special reference to its every-day business use. Descriptive and Physical Geography. History. Science of Common Things. Vocal Music. Penmanship.

The following High School studies are elective. Classes will be formed when two or more pupils shall be found to enter them: —

Algebra. Book-keeping. Natural Philosophy. Physiology. Latin.

The course of instruction in the Intermediate Department is: —

Mental Arithmetic — thorough course. Geography and Map Drawing — Primary. Reading — Intermediate or Third Reader. Spelling. English Grammar — Elements. Penmanship and Elementary Drawing. Singing — song singing by rote.

The course of instruction in the Primary Department is: —

Reading — Primer through Second Reader. Mental Arithmetic — Elementary. Geography — first steps. Penmanship and Elementary Drawing. Singing — song singing by rote.

It is the desire of the Board of Education to meet, as far as is in their power, the wants of a large number of the citizens of this community, who wish to secure to their children a *practical education*, the expenses of which shall be commensurate with their means.

TERMS: *Five* dollars per quarter, or *twenty* dollars per annum for each pupil in any of the departments. For any deviation from these rates, application must be made, either personally or by letter, at the Education office.

H. R. HITCHCOCK,
Inspector General of Schools.

Education Office, Honolulu, Sept. 26, 1873.

[*From the Report of the Superintendent of Charlestown Public Schools*, 1873.]

THE course of study in our grammar schools is the result of long experience, and, I believe, requires no *radical* change. As more intelligent teaching secures more time, there will undoubtedly be modifications of the course, and additions to it; and these modifications will be in the future, as they have been in the past, tending to a more complete and practical education for the great mass of pupils. We not unfrequently hear the complaint that too much is required of the pupils, and that the introduction of drawing, music, etc., takes just so much from the thoroughness with which the ordinary branches are taught. On the other hand, we are met with the complaint that so little is accomplished during the six years of the grammar school course. I think there is some ground for both these complaints. The introduction of new studies must, of course, take from the time formerly devoted to the meagre course of our grammar schools; and if no improvements are made in our processes of teaching, there may and must be a loss in thoroughness.

It is believed, however, that so much more can be accomplished by intelligent teaching than has been by the routine methods of those who have had no special preparation for their work, that we have not yet given our pupils as much to do as they can do thoroughly, under the most intelligent instruction. Experience, however, has shown that attention to these branches has not been attended by any falling off in the other branches. Their

introduction has made school pleasanter, and produced a degree of interest and activity that has reacted favorably on all school studies. Should more time be wanted, I think I see where it may be gained from the ordinary course. *Intelligent teaching* can impart a better and more practical knowledge of geography in half the time that we have usually had. The same may be said of grammar; and I believe a better knowledge of the practical rules of arithmetic may be acquired in a considerably less time than we now devote to it; and instead of its being done at the expense of thoroughness, I think we may add to the thoroughness. When Judge Story was asked why he made so large a book on a certain subject, he said, "Because I had not time to make a smaller one." Paradoxical as this may seem to some, it was probably true; and if so, the book must have contained much perhaps in some way, more or less remotely, relevant to the subject, but not necessary to its development.

So in teaching. As our teachers are more thoroughly prepared, so that they can eliminate all that is not strictly necessary, the principles now buried under different forms will be found to be few and very simple. In a popular text-book on arithmetic, I find a rule for dividing a fraction by a whole number; another for dividing a whole number by a fraction; another for dividing a mixed number by a whole number; another for dividing a whole number by a mixed number; another, which should have been the first and only rule, for dividing a fraction by a fraction; another for dividing a mixed number by a mixed number; and still another for reducing a complex fraction to a simple one.

When the pupil has learned, as he is supposed to have learned, in this book, that a whole number may be written as a fraction by placing the denominator one (1) under it, and how to change a mixed number to an improper fraction, there is but one principle and one process to be learned, instead of seven, as given in the book. Nor is it wholly loss of time and tax on memory that I complain of. The impression is given that there are seven different things, when, in fact, there is but one. Thus we meet, at every turn, the necessity for a more thorough preparation of teachers.

Mr. Mann saw this in 1840; and all experience since proves that, after providing good accommodations and apparatus, the question of progress depends chiefly on the preparation and fitness of teachers. Notwithstanding all that has been done by our normal schools to give us the best teachers,— and they have done much,— we are still far behind several of the European countries in this regard, even when we make this preparation an essential requisite.

INTELLIGENCE.

PERSONALS.

EDWARD H. PEABODY, Esq., of Worcester, is principal of the Pratt Free School, Middleboro'. Mr. P. graduated from the Normal School at Bridgewater, in 1863, after which he taught the Reading High School several years, but has of late been associate editor of one of the leading dailies of Worcester.

ALONZO MESERVE, Esq., usher of the Bigelow School, South Boston, has been appointed sub-master of the Prescott Hill School, Charlestown.

J. GARDNER BASSETT, Esq., of Bridgewater, has been appointed usher in the Bigelow School. Mr. B. leaves a most excellent mastership in Fall River, where every effort was made to retain him.

HENRY SAWYER, Esq., of Natick, is elected usher in the Dwight School, succeeding Mr. Parker, promoted. Mr. S. did good work in the Natick Grammar School, and enters upon his new field of labor under most favorable circumstances.

Miss H. AMELIA SMITH is appointed teacher in the Lewis School. She formerly had a successful experience in Mr. Clark's School, South Boston.

Miss ROXANA W. LONGLEY is appointed teacher in the Franklin School, Boston.

Miss KATE A. MASON is elected teacher in the Dearborn School, as is Miss MARTHA D. CHAPMAN.

Miss MARY M. CLOONEY is appointed to the High Street School.

Miss CLARA M. SYMONDS, of the Rice Grammar, and ABBIE D. HAWKES, of the Brimmer, have resigned.

Mr. J. M. DILL, usher of the Quincy School, is elected sub-master of the Andrew School, South Boston. Mr. Dill's record is one of the clearest and brightest of any young teacher in the State. He graduated from the Bridgewater Normal School only eighteen months since, and by hard work and merit has risen by four steps to his present honorable position.

Mr. JONATHAN KIMBALL is elected superintendent of the Public Schools of Chelsea, at a salary of $2,500. Mr. K. is best known to the teachers of the State as superintendent of the Salem schools, which position he occupied for several years. He has of late been superintending the schools of Wakefield.

SILAS H. HASKEL, Esq., for some years sub-master of the Dwight School, has resigned because of ill health. He has been out of school nearly a year, seeking health in travel.

WALTER S. PARKER, Esq., usher in the Dwight, was promptly promoted to the sub-mastership thus vacated. Mr. P.'s success has been most signal.

Mr. H. P. MAKECHNIE, whose ill health has kept him from school duties in the Lincoln Grammar School, West Somerville, is so far recovered that he has returned to his labors. His school suffered none during his absence, under the most excellent management and teaching of HENRY F. HOWARD. The scholars made Mr. H. a handsome present in testimony of their appreciation of his services.

CHARLES F. KING, Esq., of the Lewis School, Boston, delivered a lecture on the evening of the 16th instant, under the auspices of the Somerset Grammar

School Library Association. It is pronounced one of the best lectures we have had during the season. Mr. K. is a very successful teacher, and from his admirable style as a speaker we predict equal success in the lecture field.

MATILDA FLETCHER is determined to establish an industrial exposition with every ward and district school in the country, before the Centennial, provided she can obtain, what she should have, the hearty approval and co-operation of teachers and school officers. Her plan is to set apart one day per week in which each pupil shall be required to bring to the school-room some useful article, made by his or her own hands, to be exhibited and explained, under the supervision of the teacher, in the presence of the parents and friends. These articles to consist of specimens of cooking and sewing of all kinds, or anything else common to household work; iron and wood work of all kinds, from a plain box or horse-shoe to a steam-engine or house in miniature, with all other useful things known to the children, or that may be invented by them. Also, farm and garden products, in their season, with explanations of process of culture, kind, value, etc.

General Eaton, United States Commissioner of Education, and many other eminent educators, cordially approve her ideas, and certainly she sustains them with many and pertinent reasons that cannot be gainsaid.

BOSTON. — The sudden enlargement of Boston has, perhaps, affected no department of its government more than the schools. Each of the three added districts had been laboring for years to perfect a distinct, independent course of study, and however anxious they may be to assimilate with the city plans, it will be no easy matter.

The text-books are to remain unchanged as yet; but the salaries are to be speedily placed on a systematic basis.

The question of corporal punishment is also a source of agitation, and is not yet fully settled; but the use of the rod will not be allowed to any extent in either of the High Schools it is safe to affirm. Most of the changes in text-books are laid over for the present. Underwood's "Hand-book of English Literature," Guyot's "Physical Geography," and Hooker's "Child's Book of Nature," are adopted as required books.

The admission of the ladies elected to the Board to a place in the deliberations of this committee, has been a question warmly contested, but the decision of the Supreme Court, that there are no constitutional objections, and the opinion of the City Solicitor, which will soon be given, will undoubtedly settle the matter for the present.

Appointments. — Andrew School, Elizabeth A. Winware, master's head assistant; Mary E. Perkins and Emma C. Perkins, assistants in the Grammar School; Jessie C. Tileston and Elizabeth Ordway, Primary School teachers; Eliot School, Ellen Forbush and Miss Reggio.

Charlestown District.— Ellen B. Wentworth, assistant in the Bunker Hill School; Miss L. A. Whitman, in the Harvard Primary; Mary F. Flanders Primary, No. 5.

CAMBRIDGE. — Miss Mary E. Towle, a graduate of the last class at the Westfield Normal School, has been appointed a teacher in the Webster School at a minimum salary of $600.

Miss Clara E. Matchett, a graduate of the Cambridge Training School, has been appointed temporary teacher in the same school at a salary of $500.

Miss Emily H. Phinney, of the last class at Bridgewater, has been appointed teacher in this school at a salary of $500.

Miss Emma J. Hale, who taught successfully here the past year, has resigned, and entered the Boston School of Oratory, to pursue her studies in that department.

The reputation of the city as an ed u cational centre will not be improved by the decided action of the Common Council abolishing the office of Superintendent of Schools. Why the foremost city in the State should thus deliberately take the back seat is a mystery.

Appointments. — Mary A. Willis, of Reading, has been appointed assistant in the Thorndike Grammar School; Mary E. Towle, assistant in the Webster School, and Sarah F. Gordon in the Shepard School. Helen M. Moley, in the Quincy Primary School; Agnes Cox, in the Otis Primary.

The vexed question of superintendency has caused much uneasiness, but the agitation in this city, which called forth a joint meeting of the Committee, Aldermen, and Common Council, brought out some of the most unanswerable arguments for the necessity of a superintendent that had been recorded as yet. The committee were ably represented in the discussion by men who knew whereof they affirmed. It is to be hoped that the Legislature will put the whole subject of Superintendents where it belongs, with the School Committee. It is necessary to the efficiency of the school system.

CHELSEA. — Miss H. L. Weaver has resigned as first assistant in the Carter School.

LYNN. — The committee have organized with choice of Theodore Attwell as president, and W. P. Sargent as secretary. The question of superintendency is being agitated anew, and with a probability of the passage of the ordinance.

NEWTON. — The declination of N. S. King, Esq., to serve longer on the School C ommittee, after a most handsome nomination, called forth from George E. Allen, Esq., a most cordial expression of the feeling of the town at thus losing from the school councils one who had been most active and efficient during seventeen years of service.

Miss H. L. Macreading has resigned as teacher in the Upper Falls Grammar School.

Mr. J. A. Gould presented a resolution which, though doubtless intended as a compliment, has raised the ire of many an advocate of woman's rights. It seemed to imply that women are only *fair weather* officials.

"*Resolved*, That we express our regret that the inclemency of the weather this evening has prevented the ladies belonging to this Board from being present at this last meeting of the School Committee under the town organization."

Appointments. — Miss V. A. Barker, teacher at the North Village; Nettie M. Freeman, as teacher of the Pearl Street Grammar; Alotta C. Wilmarth, Pearl Street Primary; Adelaide Reed, first assistant in Crafts Street Grammar; Sarah E. Pratt, at the Lower Falls; Harriet A. Townsend, in the Auburndale Grammar.

FITCHBURG. — Mr. E. A. Hubbard has been re-elected Superintendent of Schools and his salary increased to $3,000.

Mr. H. S. Kilby, a recent assistant in Harvard College, is appointed successor of C. F. Adams, resigned, as sub-master of the High School, at a salary of $1,200.

Miss Lizzie P. Howard, of the High Street Intermediate School, has resigned, and Clara L. Tenney succeeds her.

Mr. Clark has succeeded in having a convenient laboratory fitted up in the High School building for class work.

Books.

ESSAYS ON EDUCATIONAL REFORMERS. By Robert Herbert Quick, M. A., Trinity College, Cambridge, etc. Cincinnati: Robert Clark & Co.

This book gives us an interesting account of the schools of the Jesuits, of whom it is said that "no body of men has played so prominent a part in education since the revival of learning." Then we have the leading points in the systems of Ascham, Montaigne, Ratich, Milton, Comenius, Locke, Rousseau, Basedow, Pestalozzi, Jacotot, and Herbert Spencer.

Their theories, both with regard to what to teach and how to teach, are very ably discussed; and the principles and methods in which they agreed, and those in which they disagreed, are noted.

For the part of a critic the author "claims at least one qualification, — practical acquaintance with the subject." We are inclined to give him credit for several qualifications, — catholicity of spirit, good judgment, keen insight, and an extensive practical acquaintance with the subject. Such books are very much needed among us. If we are to have a science of pedagogy, it must be based not entirely on theory, but we must learn important lessons from experience. We know of no book more suggestive and instructive on this subject.

CICERO DE SENECTUTE (Cato Major): A Dialogue on Old Age. Boston: Ginn Brothers. 1873.

THE CONSPIRACY OF CATILINE, as related by Sallust. Boston: Ginn Brothers. 1874.

These works are prepared under the joint editorship of Messrs. J. H. and W. F. Allen and J. B. Greenough. Either of these gentlemen would be thoroughly competent to edit a classic author. From the combined efforts of the three we ought to expect something uncommonly good. In this expectation we are not disappointed. Rarely has it been our lot to see a new edition of a classic author that so entirely satisfied our mind as to what such an edition should be. The publishers have done their part of the work in their usual faultless manner, and the editors have shown throughout their exact appreciation of the student's needs, and their own ability to supply them.

We have looked through the notes with some care. Here we find help given where it is most needed, and withheld where it is unnecessary. There is nothing that looks at all like "padding." Every word tells. The translations are almost all short, but very pithy and remarkably idiomatic, — as far removed as possible from the bold literalness of some editions and the free paraphrasing of others. Many admirable hints are given on the force of those particles which the lazy schoolboy translates, and the lazy schoolmaster allows to be translated, by "indeed," — *vero*, *quidem*, *certe*, and the like. Grammatical references (to Allen and Greenough's Grammar) are given occasionally, but not too often. Other notes, that explain allusions to Roman history, laws, and customs, are of the very best.

If we seem to give too extravagant praise, we can only advise our readers to examine the books for themselves, and we think they will agree that our praise is well bestowed.

THE ŒDIPUS TYRANNUS OF SOPHOCLES. Edited for the use of schools, with English Notes and an Introduction. By John Williams White, A. M., Professor of Greek in Baldwin University. Boston: Ginn Brothers. 1874.

A new edition of the Œdipus Tyrannus has long been needed in this

country to meet the wants of beginners in Greek tragedy. Professor White's edition is intended for that class of students, and appears to be well adapted to their needs. The volume contains a "Partial List of the Editions of the Œdipus Tyrannus," twenty titles being given, and the names of two lexicons. Next follows an Introduction, which contains a carefully written analysis and criticism of the play, occupying about twenty-five pages. This introduction is very interesting, and well worth reading even to one who cannot go into the study of the text. The text and notes occupy about an equal number of pages. Of the latter it may be said, by one who is not very familiar with the tragedy, that they appear to be of the right kind. One feature is to be especially commended, and that is the frequent introduction of quotations from English classics, the language or sentiment of which is analogous to that in the passages in the play with which they are compared. We recommend the book with confidence to all who have occasion to study or teach the great tragedy.

TRAVELS IN CASHMERE, LITTLE THIBET, AND CENTRAL ASIA. Compiled and arranged by Bayard Taylor. New York: Scribner, Armstrong & Co. For sale by Thompson, Brown & Co., Boston.

Another volume of the Illustrated Library of Travel, Exploration, and Adventure.

It begins with a general description of Central Asia. Then we have an interesting account of the travels of Marco Polo, in the latter part of the thirteenth century, — he being "the only European traveller, from the most remote period down to the present age, who ever visited the high table-land of Thibet and the countries beyond."

Most of the book, however, is devoted to modern attempts at exploration, including the journeys of modern travellers in that unknown region which may yet become the theatre for the great and final struggle between England and Russia for political supremacy in Asia. Bayard Taylor's name is a sufficient guarantee for the compilation and arrangement, and the publishers have spared no pains in its mechanical execution.

FIRST BOOK OF GEOLOGY. By William S. Davis. With 115 illustrations. And

ELEMENTS OF ANIMAL PHYSIOLOGY, CHIEFLY HUMAN. By John Angell. Illustrated with 83 figures. New York: G. P. Putnam's Sons. For sale by Noyes, Holmes & Co.

These books, belonging to "Putnam's Elementary Series," prepared by men whose names are a sufficient guarantee of their excellence, are intended, to quote from the preface of one of them, "to introduce the really earnest student to the study" of the subjects.

In the work on geology, the student is recommended "to study it as a geologist"; "to see and handle, as far as possible, all that which is merely described here." So in the work on Animal Physiology, the teacher is to supplement the text-book "by good diagrams, a free use of the blackboard, and of the lungs, heart, kidney, eye, etc., of the sheep," with an occasional dissection of a small animal.

These books may thus be made useful in teaching science; and the hints derived from them, and the interest which will certainly be elicited, if the author's advice is followed, will react favorably on methods of teaching other branches.

THE POPULAR SCIENCE MONTHLY for March contains a portrait of Agassiz, and an interesting sketch of his life and scientific labors, by Richard Bliss, Jr., of the Cambridge Museum of Comparative Zoölogy.

Charles H. Hitchcock, Professor of Geology in Dartmouth College, has an article on "The World before the Introduction of Life." But it seems invidious to single out articles when all are so interesting and instructive.

LIPPINCOTT'S MAGAZINE is as handsome and as good as ever, which is saying enough.

OLD AND NEW has several chapters of "The Way we Live Now," and two chapters of "Tom Haliburton's Quandary," besides its usual amount of other valuable matter.

THE ATLANTIC MONTHLY has two chapters of "Prudence Palfrey," which will be looked for with impatience; another chapter of "Baddeck, and That Sort of Thing," by Warner; a continuation of "Mose Evans," and many other readable and interesting articles. The Atlantic seems to have lost nothing by its change of publishers, either in appearance or interest.

THE INTERNATIONAL REVIEW for March is especially interesting. Dr. McCosh's article on "Upper Schools," and that of Amasa Walker on "Our National Currency," are timely as well as valuable. The article on "Working Classes in Europe," by Hon. Thomas Hughes, every one will wish to see. A. Williams & Co. have it.

J. W. Daughaday & Co., Philadelphia, will issue this month a volume containing a new and choice collection of original dialogues, tableaux, etc., adapted to the wants of school exhibitions, literary societies, lyceums, the holidays, lodges, church, Sunday-school, and sociable gatherings, temperance meetings, etc., and also as a book for home entertainment. Compiled by William M. Clark, editor "Schoolday Magazine."

BOOKS RECEIVED.

Received from the house of G. P. Putnam's Sons, of New York, of their "Advanced Science Series": —

PHYSICAL GEOGRAPHY. By John Young.

ANIMAL PHYSIOLOGY: The Structure and Functions of the Human Body. By John Cleland. With 158 engravings.

A MANUAL OF INORGANIC CHEMISTRY: The Non-Metals. By T. E. Thorpe. Also,

THE PORTABLE ATLAS. Consisting of 16 Maps. By John Bartholomew.

Noyes, Holmes & Co. have them for sale.

Received from D. Appleton & Co.: —

THE ELEMENTS OF PHYSIOLOGY AND HYGIENE: A Text-Book for Educational Institutions. By Thomas H. Huxley and William J. Youmans. Revised Edition, with many Illustrations. Also,

SECOND BOOK OF BOTANY: A Practical Guide to the Study and Observation of Plants. By Eliza A. Youmans.

For sale by Nichols & Hall, Boston.